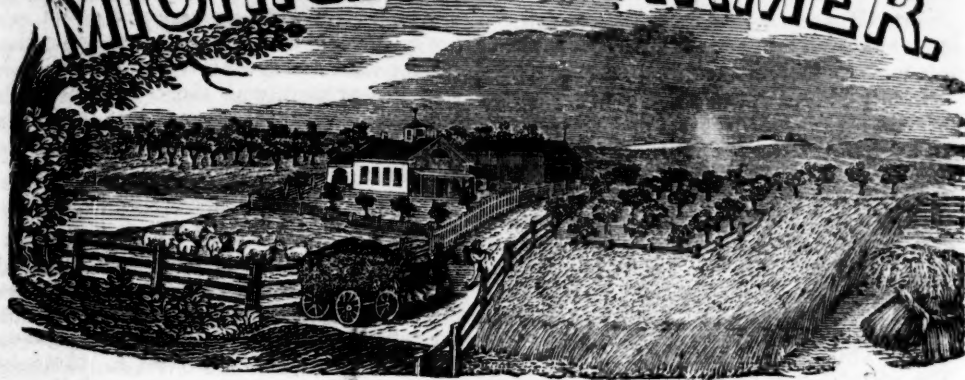


MICHIGAN FARMER.



DEVOTED TO
AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC ECONOMY.

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H. HURLBUT, EDITOR.

[For Terms see last page]

FALL PLOWING.—This is practiced with advantage on all heavy soils, as the operation of the frost renders them more light and porous, and the plowing can be done to better advantage than in the spring, as it is then liable to be retarded by too great wetness. When it is desired to put in an early spring crop, as spring wheat, oats, &c., fall plowing is especially advantageous. It also serves to destroy many insects, and seeds of weeds, and hence it should be generally practiced in gardens.

POTATOES.—It has been said that the sun should never shine on a potato. When put in the cellar they should be shut out from the light; and if earth enough is mixed with them to prevent a circulation of air, they will keep the better. A still better plan is to line potato bins at bottom and sides with turf, the grass side out, and when full cover with the same.

TIME FOR PAINTING.—The fall is the best season of the year for painting houses. In cool weather the paint dries slowly, and assumes as it hardens, a polished appearance, the oil remaining with the coloring matter. If painting be done in hot dry weather, the oil immediately strikes into the wood, leaving the paint, which can be rubbed off by the hand, like whitewash from a wall.

THE LARGEST APPLE STORY YET.—Friend Cole of the Boston Cultivator in a late number tells a story which throws every other which has met

our eye entirely in the shade. He says he has had presented a specimen of a Greening a foot in diameter! We were prepared to tell some large stories of Michigan apples, but after this exploit they are not worth mentioning. Only think of standing under one of those trees in a high fall wind. Crackie!

DISEASED APPLE TREES.—Mr. Reuben Barnes, of Leoni, informs us that a singular disease appears to have attacked his orchard. His trees are from three to five inches in diameter, and up to the time of their beginning to exhibit signs of disease, have grown with much vigor. The root becomes affected with a kind of dry rot, and grows brittle. The tap root is first diseased, and afterwards the side roots, until they fail to uphold the tree, which is leaned to and fro by every violent wind. Mr. B. took hold of one of these trees with his hand, and broke it off at the surface of the ground. No trace of insects, nor any other apparent cause can be discovered. Two of the neighbors of Mr. B. have trees similarly affected. Has any one else ever known any thing like this, and can he give a remedy?

LARGE QUINCE.—A quince has been sent us more than a foot in circumference. Michigan forever! for quinces, or, for that matter, any other kind of fruit that grows north of Mason and Dixon's line.

☞ An English quarter is eight bushels.—Wheat is reckoned at 70 lbs. per bushel; so that a quarter of wheat is 560 lbs. A bushel of Indian Corn is 60 lbs., and a quarter of corn, therefore, is 480 lbs.

For the Michigan Farmer.

Clover on Marshes.

MR. HURLBUT:—Below I give you the result of several experiments made to get clover into marshes, as well as red top,—First, in May, 1844, I plowed a small piece of wet marsh—so wet that it was difficult to keep the cattle from miring, after which I caused the sods to be pressed hard with the foot and leveled. It was pastured in 1845. This year I cut a *heavy crop* of red top, without seeding; but little if any marsh grass to be seen. On another small piece I scattered clover seed in chaff, without plowing or dragging, in August 1845:—this year I have pastured it, and the clover now looks well, and the prospect is fair for a good crop of hay next year. Both of the above pieces were but partially drained.

A neighbor of mine ditched a piece of wet marsh in 1844. In the spring of 1845 he sowed clover seed, and with a wheelbarrow he drew from an adjoining high piece of ground, sandy loam,—with a shovel scattered it over the clover seed, covering it about half an inch. The clover vegetated freely: This year a *heavy crop* of clover was cut, and in all places where the seed was covered half an inch or more, the marsh grass is entirely exterminated. To introduce clover on large pieces, a harrow would be necessary to cover the seed after burning the old grass, which can easily be done early in the spring.

In the summer of 1844 I had a ditch dug about twenty rods for the purpose of making a foot-path across a marsh. The muck thrown out was leveled down about three and a half feet wide: white and red clover has taken entire possession of the three and a half feet, except where the foot-path is. How the seed came there I cannot tell, unless scattered from a few armfuls of clover hay brought across the path.

S. B. NOBLE.

Ann Arbor Garden, Sept. 22, '46

Salt to aid Decomposition.

Prof. Johnson has done more than any other person to extend the use of salt as a manure, by giving to the world his excellent essay on salt used on soils, and the mass of experiments he has recorded. It appears that salt in small portions, promotes the decomposition of animal and vegetable substances; that it destroys vermin, and kills weeds; that it is a direct constituent of some plants, and therefore necessary to their perfection; that all cultivated plants of marine origin contain it,

asparagus for instance; and all such succeeded better when watered with salt water, than when deprived of it; that salt preserves vegetables from injury by sudden transitions in temperature, salted soils not freezing as readily as those to which salt has not been applied; and that it renders the earth more capable of absorbing the moisture of the atmosphere.—*Ex.*

AIR PLANT.

We are not skilled enough in practical botany, to know one curious plant from another, unless we have had the opportunity for personal inspection, and yet we love plants and flowers. A few months since, an esteemed friend, who had an official residence in South America, treated himself to a visit to his native country, and brought to us a present of a plant which the Venezuelans call the "May Flower." It is a vegetable of very singular habits, having apparently as little relish for the ground as a loon has. The plants, for there are apparently many of them, were tied to an old decayed stick of wood, looking like a small drift-log, that Noah might have thrown overboard to try the currents, excepting that it is "as dry as a remainder biscuit after a long voyage." We took the stick, with its valuable contents, and hung it up to the grape vine arbor, some eight or ten feet from the ground, and in dry weather threw a little water upon it early in the morning.

In June, one of these comical affairs gave out some very beautiful flowers, of a variegated lilac color, while the stems and leaves increased and multiplied. The blossoms lasted scarcely a week; but only two weeks since, there was another blossoming, on another one of these plants, and appearances are favorable to a succession of flowering. We do not know how many of these "anemones" there are in and around this city, but we do not recollect to have seen one in any of the gardens we have visited. A plant that can flourish in mid-air, without a spoonful of soil, or even a thimble-full of guano, is a convenience for those not overburdened with ground.

The very little adhesion of the roots of some of these plants to the wood, indeed, the entire independence which some of them have of the stick of wood, forbids the application of parasitic to them. There is nothing in the wood to enrich their veins; yet they look as rich and vigorous as if they had been cultivated in a rich moist soil, by the hands of a skillful gardener,

while new roots are constantly shooting out to take hold on the air, and draw thence nutriment for stalk and leaf and flower.—*Phil. U. S. Gazette.*

PLANTING CHESTNUTS.

The rapid growth of the chestnut, the excellence of its timber, and its fine ornamental appearance, render it a desirable object of cultivation. The fruit which it produces too, is not the least consideration.

Many however, who attempt raising the trees, partially or wholly fail in causing the seeds to germinate. This is usually owing to the seeds becoming *dry* before they are planted. A few days exposure to dry air is sufficient to prevent their growing.—Hence, as soon as they are taken from the tree they should be at once planted before drying a day, or mixed with moist sand, and kept in that condition till planted.—They should not be covered more than an inch and a half deep if the soil is heavy, nor more than two inches if it is light; but a still better way is to plant them half that depth, and then spread on a thin covering—say one inch of peat, or rotten leaves, which will keep the surface soft and moist.

It must be remembered that mice are exceedingly fond of the nuts, and if planted near grass lands, or other places frequented by mice, the young plants will be missing the next season.—*Cultivator.*

CEMENT FOR FLOORS.—For cellars, smoke-houses, meat-houses, &c., &c., it is often desirable to have a cement floor, rat-proof. The following recipe was procured by J. S. Skinner, from Col. Totten, of the U. S. Engineer Department:

The mortar is to be made of one part of sand to one-half part of hydraulic cement, measured in rather stiff paste. Then one part mortar, thoroughly mixed, is to be used with two and a half parts broken stone or bricks, the largest pieces not exceeding four ounces in weight, or of gravel of similar sizes, or of oyster shells, or of either or all of these mixed together. These coarse materials must be free from sand or dirt.—The concrete thus made, must be put down in a layer of not more than six inches, which will be about the proper thickness for the floor; rammed very hard and until the coarse particles are driven out of sight; care being taken to drive the top of the mass into the true place of the floor by the first process; no subsequent addition of plaster being admissible. By the help of a straight edge drawn over guide pieces, the top surface may be made smooth and even

by the first operation.

The concrete should contain no more water than is necessary to give the requisite plasticity to the mass. The floor should be covered as soon as finished, with straw or hay, which should be kept wet for several days, the longer the better.

COVERING TO THE GROUND USEFUL.—In all the essays I have seen on the application of manure, no account has been made of the advantage the soil receives from a covering. I have noticed that a spot covered by a board, a pile of rails, a heap of stones, or, no matter what, on removing the encumbrance which has occupied the ground for two or three months, and cultivating it, is found much better than the adjoining land. Observe a forest tree standing in a field—if of tolerable size and thrifty, it will impoverish a large area around it; yet the same kind of trees will grow close together, and vigorously, in the forest, where their leaves form a close covering to the ground, and at the same time the soil will be improved. Acting on these suggestions, I have for some years put my manure on clover in the spring, which I designed to turn under for wheat in the fall, giving the land the benefit of the covering of both the manure and the clover during the summer; and I think a given quantity of manure does more good to my land in this way than in any other that I have applied it. I state these things that the attention of scientific men may be turned to this question. Does not a covering act so as to prevent the escape of ammonia and other substances beneficial to the soil?—*Corr. Farmers Cabinet.*

Alpacas.—The Worcester Transcript states that a small flock of alpaca sheep has been recently imported by a gentleman in New York, and sent to be pastured in Ashfield, in Berkshire Co. They are flourishing finely, and promise to fulfill the highest expectations of those interested.

Cut fodder.—Every farmer and others keeping horses and cows, should have a straw cutter. We are now, and ever have been of the opinion, that from a fourth to half the food usually consumed by our animals in winter, might be saved by chopping. Corn butts, straw, and refuse hay, if cut, moistened with hot water, and sprinkled over with meal and a little salt, answers the purpose of the best hay, and is much cheaper.—*Cultivator.*

WHEAT IN THE U. S.—The number of bushels of wheat raised the last year was 106,548,000, which is equal to 21,309,600,

barrels of flour, or a barrel of flour to each man, woman, and child, in the United States.

Frost in August.—There was a white frost in the suburbs of Philadelphia on Wednesday morning the 19th ult.

Beeswax.—The neatest way to separate beeswax from the comb, is to tie it in a piece of linen or woolen cloth or bag, with a pebble or two to keep it from floating; place it in a kettle of cold water, which is hung over the fire; as the water heats, the wax melts and rises to the surface, while all the impurities remain in the bag.—*Ex.*

From the Horticulturist.

The Best Five Winter Pears.

MR. DOWNING:—You ask me for the results of my experience as to what I consider "*the best five varieties of winter Pears.*" I comply at the spur of the moment. I regret that at the present time my engagements will only permit of devoting the passing hour to the subject, and will necessarily compel me to pass more hastily over it than I could wish, for one of its importance. The list, however, is made up from many years' experience with the varieties named; all of which, I can confidently recommend as worthy of extensive cultivation. For more particular descriptions than will be found in the following remarks, reference may be had to the various Pomological works of the day. I commence with that "*Prince of Pears,*" the

1. **BEURRE D'AREMBERG.**—This variety has, for the last ten years, never failed to yield me an abundant crop of its delicious fruit. It has often been exhibited at the rooms of the Massachusetts Horticultural Society, always receiving the unqualified approbation of our most experienced amateurs and cultivators. Possessing all the characteristics of a first rate table pear, it retains at maturity, its flavor and *champagne* sprightliness, with all the freshness of a specimen just plucked from the tree. The foliage and fruit adhere with a remarkable tenacity, resisting the frosts and gales of autumn better than those of most other varieties. As a constant, prolific, hardy sort, the d'Aremberg is unsurpassed, and whether on the pear or quince stock, proves admirably adapted to this climate. It keeps as well as a Russet apple, and requires no further care than to gather in a dry day, and pack at once from the air, in close boxes or barrels—with no other precaution, it has been found in a state of perfect preservation in the month of January. Season, December to February. The Beurre

d'Aremberg is a fruit easily excited to maturity, and may be brought into eating in November, or retarded until March.

2. **WINTER NELIS.**—This is classed second in my list, not from any inferiority to the first named variety; for in fact, as a sweet, melting wine pear, it has no equal. Connoisseurs generally prefer the brisk, vinous juice of the d'Aremberg, but some of our good judges esteem the Nelis above all others of the season.

The growth of the tree is not strong, but more so on the quince, to which it seems well adapted; it is hardy and thrifty in rich soils, otherwise the shoots are more stunted and feeble than is usual with most other sorts. To obtain specimens above medium size, requires high cultivation and some thinning of the fruit. Keeps and ripens well, and bears good crops. Season, November to January.

3. **COLUMBIA.**—This excellent native variety has proved with me a fruit more uniformly smooth, perfect in shape, and free from the depredations of insects, than almost any other sort. The tree is thrifty and hardy, not prolific when young, but a great bearer on mature subjects, the fruit being regularly distributed over the branches, and of very uniform size. I was so much pleased with this variety when it first came to my notice, that I despatched a special messenger from the city of N. Y., to the owner of the original tree in Westchester county, for half a bushel of the pears; and I did not regret the expense of twelve and a half dollars, when I consider the acquisition of such a fine American variety. My Beurre Diels were then in eating, and I judged the Columbia of equal quality; since which, however, I have seldom seen it so good. Ripens about the first of January; of a clear lemon yellow, very handsome, and may be kept two or three weeks in this state. Its beauty will give it a ready sale, and its quality and its merits, on the whole, if not as high as our first impression, will prove perfectly satisfactory.

4. **GLOUT MORCEAU.**—This pear, under the name of Beurre d'Aremberg, is more universally cultivated in France, as a winter fruit, than any other variety. It is truly an excellent, rich, sugary pear, and is not unworthy of the appellation given it. The tree is hardy, a great and constant bearer; but it requires, like most pears, good cultivation. Few varieties succeed so well on the quince, as the Glout Morceau; a tree of which, in my own ground, annually produces a barrel of large perfect fruit; this is

clear waxy yellow, and very handsome at maturity; keeps into the winter months, with ordinary care; commands as good a price in the market, and is esteemed by many, equal to the *Beurre d'Aremberg*.—It varies much in form. In growth, it is more luxuriant on the quince; the large specimens frequently having a very thick, short stem, set angularly on the fruit, with the peculiar knobby appearance of the *d'Aremberg*. On the *pear stock*, and under medium cultivation, the stem is smooth and straight, as figured by Thompson in the *Gardener's Chronicle*, and Downing in the *Fruits and Fruit Trees of America*.—From this circumstance, the present subject has been confounded with the *Beurre d'Aremberg*. Season, December and January.

5. *PASSE COLMAR*.—As a hardy, vigorous, excellent pear, the *Passe Colmar* has few superiors. It is prolific to a fault, and requires judicious management. To insure fruit corresponding to its character in the Catalogue of the London Horticultural society, "first size, and first quality," it is necessary to commence the trimming process as early in the season as the best specimens can be distinguished, or the pruning out of half the fruit-bearing spurs in the month of March, as recommended by the late Mr. Manning, will contribute to relieve the tree of its overbearing propensity. The French make two varieties of this pear, viz: *Passe Colmar gris*, and *Passe Colmar dore*. I have never discovered any difference in the fruit of these trees, that only which is exposed to the sun, having the golden color alluded to, the beauty of which is sometimes with us further enhanced by a red cheek.

This tree makes long weeping branches, and frequently sets a second crop of fruit, which should always be removed.

Ripens gradually from November to February, but may be kept later, large and beautiful specimens having been received by me from New-Bedford, as the *Colmar d'Hiver*, on the 18th day of March.

Without the adoption of the system of culture here recommended, this variety will generally prove unsatisfactory.

An inquiry will no doubt arise in the minds of some of our readers, why the *Easter Beurre* has not found a place in the above list. My answer is, that although we obtain some specimens of first rate excellence, yet this variety has generally proved so variable and uncertain that it cannot from our experience at present, be recommended for general dissemination.

It however succeeds better on the quince.

Respectfully yours,

MARSHALL P. WILDER.

Boston, June 1, 1846.

Information Respectfully Desired.

As Chairman of a Committee, appointed at the meeting of the Farmers' and Gardeners' Convention, at New York, in October last, "to collect information," the undersigned respectfully requests the Secretaries of all Agricultural Societies and Farmers' Clubs in the United States, to address to him a note, stating the locality of the Society, and the names of the President and Secretary.

The list, when completed, will be printed, and a copy sent to each Secretary.—The object is to establish the means of correspondence, and interchange of information and views, for the better protection of the rights, and more efficient improvement of the practice, of agriculture.

Agricultural and other editors are respectfully requested to give this one insertion. There are nearly 600 such societies and Clubs in Great Britain, all well known too, and in correspondence with each other.

J. S. SKINNER, New York.

Lime—Important to Farmers.—It is stated in the *American Agriculturist* that one farmer saved his crop of clover from destruction by the slug or snail, on land bearing a wheat crop, by a slight dressing of powdered lime, scattered through a clover-seed machine, late in the evening, when the insects were busy at their work. These insects, in some regions are very troublesome, often perpetrating much damage to the crops, especially in the spring. If lime is a preventive, the fact deserves to be extensively known. Salt is sometimes used successfully in arresting their ravages, and so, also, we are informed, is sulphur.

Narrow circumstances are the most powerful stimulants to mental expansion; and the early frowns of fortune the best security for her final smiles.

A lump of saleratus inserted into the pipe of a poll evil, two or three times, will effect a certain cure.

If your cows are restive in consequence of soreness in the teats or udder before milking, apply common molasses. It should be applied in the morning, and well rubbed in,—also before milking at night. A dairy woman of our acquaintance, of much intelligence in relation to matters of this nature, informs us that she is aware of no better or speedier remedy. *Ex. Pr.*

COMPOST MANURES.

The preparation of manures by composting has its advantages; among which are the destruction of the seeds of weeds and the larvæ of insects, the better adaptation of the manure to the particular purpose for which it is to be employed, the more perfect mingling of the ingredients used, and the opportunity afforded for the formation of new fertilizing compounds by what the chemist calls *the play of chemical affinities*. As an offset to these advantages is the amount of labor required, and the costliness of some of the materials recommended as desirable.

Whatever may be thought of the expediency of composting for the general purposes of the western farmer, there would seem to be little room to doubt that for manuring the garden, and other pieces of ground which it is desired to have both rich and clear of weeds—those, for example, where carrots, ruta bagas, beets, broadcast corn, &c. are raised, the practice would pay the costs. Our natural meadows furnish to many an excellent ingredient at hand.

The materials for the composition of the heap are varied by the skillful farmer according to the crop to which it is designed to apply it, and the natural constitution of the soil. For ordinary use, however, a compost heap may be very well prepared without this particularity, and if there should be more of any ingredient than the soil or crop requires, the superabundance would in almost all cases be harmless: though the greatest economy would require that the proper proportions should be observed. The following method, similar in the main to those in use among Eastern farmers, would suffice for one who wished to prepare a manure heap with little labor and expense. If made in the fall, it would be ready for use in the spring.

Prepare in the barnyard a platform of clay, impervious to water, say a rod in diameter, a little dishing towards the centre. On this spread marsh muck or turf, a foot thick: that which has been thrown out of ditches a year or two before is best. Spread on this an equal thickness of barnyard manure. Sprinkle over this quick lime, ashes leached or unleached, salt, (old beef brine is better,) the fine dust and fragments of charcoal from coal pits, plaster, the dead bodies of animals cut in pieces, soap suds, or as many of these substances as you can, and the first series will be completed. Commence another covering the last named substances with another layer of muck of

half the former thickness, then stable manure &c. and so repeat the series until the heap is about five feet high. Much advantage would ensue from wetting each series thoroughly, as the heap is made up, with liquid barnyard manure. Surmount the whole with a thick covering of muck. If lime is used, leached ashes will answer well—if not, unleached ashes are requisite.—An alkali of some kind is desirable to aid in fermenting the mass. If a marl bed is convenient, marl may be used instead of lime, but in much larger quantity. For marsh muck, common soil may be substituted when the former is not readily obtainable.

The quantities of lime, &c. may be varied according to convenience; but there may be suggested for a layer in a heap of the size referred to, one bushel of lime, ten of leached ashes, half a bushel of salt, or its equivalent in brine, and pulverized charcoal etc., at pleasure. If the leached ashes are from a large pile where they have lain several years, they are more valuable.

The heap should be flat on top, that it may receive and be moistened by the rains. A fermentation will soon commence, accompanied with heat, which sometimes increases until it reaches 140° or 150°. To prevent the fermentation going on too rapidly, the heap is sometimes shoveled over; but this will seldom be necessary, especially where the heap is made up in the fall. A pretty high heat is desirable to secure the destruction of all vegetable and animal life, the germs of which may be present. In the process of fermentation gases are disengaged, which are intercepted by the muck, and form new combinations; the heat finally subsides, the heap settles down and becomes an unctuous mass, of a character to be immediately appropriated to the uses of vegetation. After fermenting, it should remain undisturbed until about three weeks before it is to be used, when it is shoveled over, intermixing the parts as much as possible; then left in a conical pile, covered with litter, until the ground for which it is designed has been plowed; then it is spread on, and immediately harrowed in. Injury results from exposure to a hot sun or drying wind.

Laying down to Grass—Clover among Corn—Cheese Making.

MESSRS. EDITORS: I have for nine years been cultivating a prairie farm on the bank of Fox River, raising wheat and all the et ceteras usually cultivated in this region, with various success. The land is exceed-

ingly fertile, and we usually get a large growth of crops, and in a favorable season a great yield. But if there is any rust any where we are visited with a full share of it; and corn is too often cut down by the late May frosts. So that I have become satisfied that in order to insure a fair remuneration for our outlay and labor we must go more into stock, dairying, &c. But farmers have found serious obstacles to encounter in the difficulty of procuring good cows, the successful cultivation of tame grass, &c. To remedy the first evil, I find it necessary to wait patiently until I can raise them from calves or heifers bought from the droves coming in from Suckerdom; as I have had to buy on an average half a dozen good-looking cows of the drovers, to get one really good one. And then, for successful dairying we must have cultivated grass, which I have been trying to raise year after year, with as little success as most other farmers. I have looked with anxious solicitude for a satisfactory explanation of the causes of failure, and for the remedy—which I have found to my own satisfaction: I have observed for several years that the earth or sub-soil thrown up by digging cellars or other excavations, produces a luxuriant growth of clover or grass; from which I infer that deep plowing or sub-soiling is of the utmost importance. But I attribute the failure mainly to the want of suitable preparation of the ground, and the fact of usually seeding with English grain.

Having seen it recommended in my agricultural papers to seed among corn, I threshed a load of timothy hay and sowed the seed on a piece of corn ground, among the corn, after the last hoeing in August, 1845, and I dragged it over with a light one-horse harrow. I also sowed a field adjoining, in the spring of last year, with oats and grass seed—a peck of grass seed to the acre, as in the other case. We have just harvested that on the corn ground, and got $2\frac{1}{2}$ tons to the acre; besides, a good deal was wasted by being so badly lodged we could not cut it. It was the finest looking crop of grass I ever saw grow, until a heavy driving rain beat it down a month ago. The other piece adjoining, seeded among the oats, is scarcely worth cutting. Both pieces had been formerly manured some, and deeply plowed; so I am satisfied that grass among grain, especially in dry seasons, receives an injury from the rank grain overpowering and exhausting it so long that it never recovers from it.

Guided by past experience, I shall in fu-

ture sow with corn, or turn under the stubble, and seed immediately after harvest.

I have never seen any good timothy or clover on new land, or land not deeply plowed and manured. I have some pretty good, seeded among dwarf peas, late. I have splendid red-top growing on reclaimed swamp and wet prairie.

If we have cause for self-gratulation on the success of any of our undertakings, it is in the results of our cheese-making; for although there is so much trash made in the shape of cheese, yet I believe we can satisfy any reasonable man that he will not have to send east for the *right kind*. Indeed, Messrs. Editors, I wish I could get one into the letter for you, as a sample; and in fact I think I will mail one for you as soon as I get some appointment to a high post under government, so that I can frank it.

The usual failure in cheese-making might be easily remedied if the operatives have the organs indicating order, neatness and activity, well developed; for the most essential points in cheese-making are, that every utensil the milk or whey touches should be perfectly sweet, the milk kept cool in pans over night, and the cheese worked down and got into press early, before it can sour; it should be in press at seven or eight o'clock in the morning, in summer.

Burlington, W. T., July, 1846.

REMARKS.—The above article written by a correspondent of the *Prairie Farmer*, contains valuable hints suited to this longitude. They are worthy of attention as the results of experience, and calculated to meet some of the peculiar difficulties of the farmer on prairies or openings.

The points named by this writer as the most essential in cheese-making are certainly important and necessary; but they are not *all* that are essential. The age of the rennet, its proper proportion for the quantity of milk, the temperature of the milk when set, and the manner and length of time the cheese is pressed, are all points essential to the making of good cheese: and we wish there were more in the West that understood them. We should not then see our grocers sending to New York for *Hamburg* cheese to retail at $12\frac{1}{2}$ cents per pound.—[*Ed. Mich. Farmer.*]

To destroy ants plunge a crowbar or stake into the earth to the depth of two feet, and then withdraw it, leaving the hole open. Thousands will fall into it, and die.

MICHIGAN FARMER.

JACKSON, OCTOBER, 1846.

Our Land Agency.

We believe it is a fact that from various causes no inconsiderable proportion of the farmers of Michigan are desirous of selling their farms, provided they can obtain for them what they deem their fair value. This implies no especial dissatisfaction with the country—for many, if they sell, buy again within it. The case is common in every new country, and results sometimes from pecuniary embarrassments incurred in bringing into cultivation new lands, sometimes from having in the eye another location promising, as is thought, greater advantages, sometimes from a wish to get more land, or to live near relatives, and not unfrequently, perhaps, from an unsettled mind, without any particular moving impulse other than is found in the general observation that one who has once changed his residence, is the more likely to do so again. Now we believe that in many of these cases the individuals act unwisely. It is better for farmers, not to change their locations, without very good reasons. A shifting, floating agricultural population is not the most desirable in any country. But for those that for good cause wish to exchange their property, it appears highly desirable that a medium should be provided whereby seller and purchaser may communicate; and such a medium we hope to furnish.

We propose to all who may wish to dispose of lands, to send us a description of them. This description we should enter on a Register, where it would remain for the inspection of all who may wish to purchase. The land may now be considered as placed in the market, and this costs the owner nothing, except 5 cents postage on the letter forwarding the description. If a sale is not effected, there is no further charge—if it is, and through our means, we then expect a recompense as mentioned in the advertisement. Of course, it becomes our interest to use all proper endeavors to effect a sale. We have taken measures to make our agency extensively known, both in our own and the Eastern States, and thus the attention of many will be drawn to the property placed at our disposal. The American Real Estate Agency, with which we are connected, informs us that there is considerable inquiry in the Eastern States for improved farms in Michigan, and request to furnish descriptions of some which are

our lands published in a catalogue, the charge of a dollar.

The Hessian Fly.

If this great enemy of the wheat-grower is still among us, his operations have for three years past been on so limited a scale that they have not attracted attention. Either the occurrence of seasons unfavorable for the propagation of the insect, or the multiplication of its natural enemies, or both causes combined, have probably been the means of diminishing its numbers. But its foothold may not be entirely relinquished,—indeed we have heard that it has been seen on wheat fields in this county the present season. Whether this observation is correct, or whether some other fly may have been mistaken for the veritable "Simon Pure," we know not; but that its presence may be the better detected we give a drawing of it.

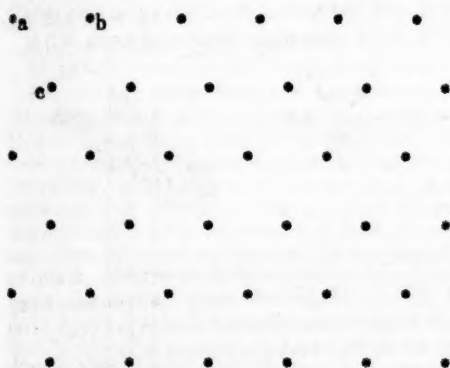


Figure *a* represents the fly magnified; *b*, shows the same of the natural size, and also several in the flax seed state, adhering to a wheat stalk. It will be observed that the fly is exceedingly small, measuring about one-tenth of an inch in length. It deposits its eggs in the small creases of the young leaves of the wheat. The number of eggs on a single leaf, according to Mr. Herrick, is often twenty or thirty, and sometimes much greater. If the weather is warm, the eggs hatch in four days after they are laid, and the maggots crawl down the leaf and work their way between it and the main stalk, passing downwards till they come to a joint, just above which they remain, a little below the surface of the ground, with the head towards the root of the plant. Here they increase in size by sucking the juices of the stalk, and gradually change from a white to a flax seed color. They do not cast off their skins in order to become pupæ, but the pupa gradually cleaves from the dried skin of the larva, and finally is entirely detached from it. Still enclosed within this skin, which thus becomes a kind of cocoon or shell for the pupa, it remains throughout the winter, safely lodged in its bed on the side of the stem. As soon as the weather becomes warm enough in the spring, the insects are transformed into flies, break through one end of their shells, and escape into the air. They are soon prepared to lay their eggs on the leaves of wheat sown in the autumn before, and also on spring sown wheat. They continue to come forth and lay their eggs for the space of three weeks, after

which they entirely disappear from the fields.—The maggots hatched from these eggs turn to pupæ in June or July, and most of them to flies in the autumn, ready again to stock the fall sown wheat with their progeny.

Planting Orchards.

It is sometimes desirable, where the extent of ground to be devoted to fruit trees is limited, to set out as many as possible on a given surface, preserving the requisite interval between them. This problem is resolved by pursuing the following plan :



In the method here marked out, the trees are all set in the corners of equilateral triangles ; each interior tree having six others at an equal distance from it, as they are also from each other. Some difficulty may be experienced by one unaccustomed to this mode, in placing the trees. We will describe a way in which this may be done without much trouble, and with perfect exactness. Set a row of trees the intended distance (say 20 feet) apart, along one side of the orchard. Then with one end of the measuring rod or rope at the first tree *a*, describe with the other end a part of a circle, near the place where the first tree in the next row is expected to stand. Remove the end of the rope to the second tree in the first row, *b* and with the other end describe in like manner a part of a circle, cutting the former: where these arcs of circles cross each other, *c*, is the exact position for the first tree in the second row. The place for the rest may be determined in the same way—or more speedily, the position of the two at the ends of the row may be thus determined, the trees planted and that of the others ascertained by measurement, and by sighting through. Where the distance between the trees is 20 feet, the distance between the rows will be nearly 17 ft. 4 inches. If the space between the trees is 2 rods, that between the rows will be about 1 rod, 12 ft. 1 inch.

Besides the advantage of occupying less ground, an orchard planted in the manner described would be more picturesque and pleasing to the eye, than in the usual mode.

Preservation of Apples.

In digging the ground in 10th street, New York, to put down a sewer, an apple was found in its perfect size and shape, and about 10 or 12 feet below the surface. This apple might have been probably 50 or 100 years in that place, as it was a practice of the old Dutch inhabitants to bury pearmain, russets, and all those kinds of apples, for spring use, as is done with potatoes.—This apple might have escaped notice, lurking in some corner of the pit, and have never been disturbed until the ground about that part of the city was levelled, the hills dug down, the hollows filled up, and this single apple not noticed at the time.

It appeared to be an apple of the pearmain kind, with a stiff clear skin, that was not porous, but rather horny as in the pippin ; and it seemed to have once had a red cheek ; age had colored its pulp, which showed a brown color. The ground about that part of the island is a light sand.

A hint may hence be taken how apples may be kept—a combination of air, water, and heat is the sole cause of all quick decay.

The incident above mentioned, found in the N. Y. Farmer and Mechanic, reminds us that gypsum is said to be an excellent preservative of apples. A quantity of fall apples not reckoned among the long keepers, we are informed, was packed in a barrel with alternate layers of gypsum, care being taken that the apples should not touch each other, and were found in a state of perfect preservation the next summer. Let it be tried.

Apples designed for preservation should be picked by hand, and when poured from a basket, be received on a little straw, hay, or other material, to prevent bruising.

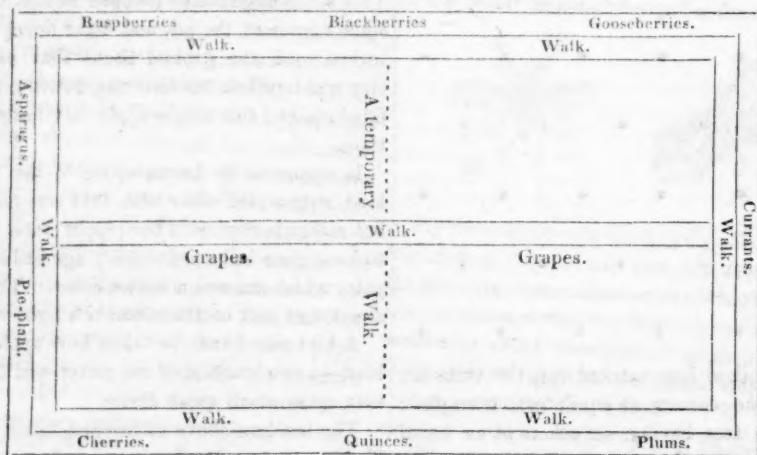
BEE-MOTH.—In an old volume of the New England Farmer is a remedy against the bee-moth which is recommended as infallible. It consists merely in covering the floor board on which the hive stands, with common earth about an inch thick. A hive set on earth, it is said, will never be infested with worms, for the bee-moth will not deposit her eggs where the earth will come in contact. She naturally resorts to a dry board as her element. The remedy has been employed by a number of persons for several years with complete success.

The Farmer's Garden.

The utility and comfort of a good garden are universally admitted. But as ordinarily arranged, so much time is requisite to plant and keep it in order, that in his attention to things of greater necessity the farmer is generally impelled to neglect it. The spading, laying out and weeding of beds, and the repeated cultivation with the hoe of the whole space, require for the garden an amount of labor so disproportionate in comparison with its results to that employed in field culture, that one who finds it necessary to put his labor to the most profitable use will, of course, give a preference to the latter, and neglect the former. The

farmer is, of necessity, a matter-of-fact man, and cannot afford, as a general thing, to sacrifice his interest to his taste.

But if a method can be devised by which a garden can be neatly laid out, and well cultivated, at the cost of but little more labor than would be devoted to the same space in the field, then the most utilitarian would acknowledge that the luxuries produced in it would not be purchased at too dear a rate. It is the object in what follows to furnish a plan by which this end can be accomplished, and this season of the year is chosen for its publication, in order that time may be allowed for its arrangement.



PLAN OF A GARDEN.

The form in the above plan, it will be observed, is a parallelogram, of which the length is double the breadth. For a family of moderate size, 4 rods by 8 is large enough. Immediately within the fence, is a permanent border, $3\frac{1}{2}$ feet in width, extending around the garden, which would be well if bounded by 8 inch boards on the inner side.—This is designed to be occupied by such plants as are perennial, and must not be disturbed. At distances of from 10 to 15 feet along this border, may be planted (with the exception of one side) trees of small growth, such as quinces, plums, &c. In the intervals, between these, may grow currants, gooseberries, raspberries, blackberries, &c. The border on one side may be reserved for asparagus and pie-plant.

Within the border is a walk 4 feet wide, extending also around the garden. Through the middle, lengthwise, is another walk, which may be bordered on each side by grape vines trained on trellises so as to form a shaded arbor through the whole extent. Crossing this at right angles through the middle is another smaller and temporary passage.

And now for the cultivation. In the spring

the team is introduced, and plows the garden in either one or two lands lengthwise through the whole extent; disregarding the cross walk. The surface is pulverized by the harrow, and leveled, if need be, by a light roller. The temporary cross walk is made, and the various kinds of vegetables are then planted in rows the entire length of the garden and at varying distances apart, according to the kind—onions in double rows, 12 or 13 inches, carrots 15 inches, beets and parsnips 20 inches, cucumbers and melons, 5 feet. Corn and potatoes as in field culture, &c. No beds are made for any vegetable. The after cultivation may be performed by means of the horse and hand cultivator, which together will save nearly all the fatiguing and slow labor of the hoe.

The walk on the north side may be shaded by planting just south of it circles of climbing plants, pole bean; &c., or by trellises of grape vines.

Strawberries may be cultivated in alternate strips extending lengthwise through the garden, according to the manner described in our July number. Instead of the spade as there recommended, the plow may be used.

If any should prefer dispensing with the central walk with its rows of grape vines, there

would then be the advantage of being able to plow and harrow before planting, in both directions.

A garden so arranged kept clean for one year, and good care taken to introduce no seeds of weeds subsequently with the manure, would afterwards give the owner very little trouble. To prevent the introduction of weeds, all the manure applied to the garden, should be composted, according to a method of which we have spoken in this number. By this process, every seed will lose its power of vegetation.

From the N. Y. Farmer and Mechanic.

Comparative merits of Charcoal and Barn-yard Manure as a Fertilizer.

MR. STARR:—In the year 1788, my father purchased and removed upon a tract of land in Hanover township, Morris county, N. J. The land, owing to the bad system of cultivation then prevailing, was completely exhausted, and the buildings and fences in a state of dilapidation.—The foundation of the barn was buried several feet beneath a pile of manure, the accumulation of years, little or none ever having been removed upon the lands. Even the cellar, beneath the farm house, was half filled with the dung of sheep and other animals, which had been sheltered in it. The former occupant of the farm had abandoned it on account of its supposed sterility, and taken up the line of march for the valley of the Miami, along with the first caravan of pioneers who accompanied Judge Symmes.

The barn, before referred to, was removed to another situation, soon after its foundation was uncovered, by the removal of the manure to the exhausted fields; and its site, owing to the new arrangements of the farm, became the center of one of its enclosures. During the seventeen years which I afterwards remained upon the farm, the spot could easily be found by the luxuriance of the grass, or other crops growing thereon, though the abatement in its fertility was evident and rapid. On revisiting the neighborhood in the autumn of 1817, I carefully examined the corn crops then standing upon the spot, and was unable to discover the slightest difference in the growth or products upon that and other parts of the field. This was about twenty-eight years after the removal of the barn.

Upon the same farm, and upon soil every way inferior, were the remains of several pit bottoms, where charcoal had been burned before the recollection of any person now in the vicinity, and most probably, judging from appearances, between the years 1760–70. These pit bottoms were always clothed, when in pasture, with a luxuriant covering of grass, and, when brought under tillage, with heavy crops of grain. Eleven years ago I pointed out these facts to the present occupant, and his observations since coincide with my own, previously made; that they retain their fertility, very little impaired, a period probably of about 70 or 80, certainly not less than 65 or 70 years.

Here, then, is an excellent opportunity of ob-

serving the comparative value of charcoal and barn-yard manure, as a fertilizer of lands. The former has not, after at least 60 or 70 years exposure, exhausted its powers of production, while the latter lost its influence entirely in twenty-eight years, and most probably in much less time.

I have since had many opportunities of observing the effects of charcoal, left in pit bottoms, upon vegetation, one of which only I will relate. The last season, in the northern part of Ohio, was one of uncommon frost and drouth. In May, the wheat fields, when promising a luxuriant crop, were cut off by frost, (especially in the valleys, and very much injured in the high lands,) which was succeeded by the most severe drouth ever experienced in the West. The moiety which escaped both these scourges, was afterwards very much injured by rust. Near the village of Canton, upon a farm on high ground, which had been mostly cleared of its timber by its conversion into charcoal, it was observed that, upon the old pit bottoms, the wheat grew very luxuriantly, was clear of rust, and had ripened plump in the berry; while in the adjacent parts of the field, it was short in growth, the stem blackened with rust, and the berry light and shrivelled. The hint has not been altogether lost upon some of the farmers of the vicinity, and some of them are preparing to make an application of charcoal upon their lands, the result of which, when fully ascertained, I shall be happy to communicate to the public, especially if the facts above stated succeed in attracting the attention of agriculturists.

LEWIS VAIL,

Speedwell, Morris co., N. J., July 26, '46.

Raising Cranberries.

I first commenced the experiment of the culture of the cranberry some eight years since, by transplanting the plants in their wild state, on to upland soil, of a clayey nature. After harvesting a crop of potatoes I prepared the soil as for sowing grain, by ploughing and harrowing, then marked it lightly in drills, 18 or 20 inches apart. The following spring I perceived that not more than two or three hundred had survived. I then filled the vacancies by transplanting as before. In the fall I found I had been no more successful than in the previous spring. Upon an examination of those first planted, I found many young plants shooting up from their roots. With these I filled up the vacancies, and found them all to survive. An abundant proof that they will become naturalized to a dry soil, and require no more trouble in the raising, than the strawberry, or any other plant. I have since made experiments on different soils, and find that they will do well on any ground that will produce the potato. The first season we must not expect much fruit. The third or fourth, the plants will cover the whole ground, yielding from two to three hundred bushels per acre. From half an acre I have obtained 104 bushels, and should no doubt have gathered many more if they had not been destroyed by an early frost. I consider the cranberry crop as sure as that of any other fruit. It is sometimes injured by late spring frosts, while in blossom; and sometimes by early frosts in August, as was the case this year. Those who

have land bordering upon a running stream of water, that can be stopped, and made to overflow it at night, when an early frost is anticipated, and withdrawn in the morning without injury to the plants, need have no fear of failure in their crops.

The time to harvest the cranberry is generally from the first to the middle of September. They are gathered with rakes made expressly for the purpose; one man gathering from 30 to 40 bushels per day, with the assistance of a boy to collect the scattering berries. They grow to double the size of those in the wild state, of much better flavor, and command in market 30 to 40 per cent. more than the others. I shall have plants to supply those who wish in the spring.

With much respect, S. BATES.
Bellingham, Mass., 1845.
—[Transactions of the N. Y. Ag. Society.]

Woolen Match.

There is to be a *woolen race*, next spring, between Messrs. Perkins & Brown, of Summit Co., Ohio, and Mr. N. S. Blakeslee, of Watertown, Connecticut. They are each to shear forty yearling lambs from their respective flocks—put the wool in the best possible order—bring it to Lowell, and submit it to the inspection of Samuel Lawrence, Esq., who is to decide upon its merits. A general invitation is given to other wool-growers to bring in a like number of fleeces from yearling sheep, and we anticipate quite a race of wool-sacks over the course.

Mr. Blakeslee's sheep are Merinoes of the Humphrey's importation. Perkins & Brown's are Saxony.

The following will give in detail the plan of operation.—*Mr. Farmer.*

IMPORTANT MEETING OF WOOL GROWERS.—At a meeting of wool-growers, holden at the office of the Middlesex Company, in Lowell, Mass., on the first day of July, 1846, representatives from the eight following States being present, viz: Massachusetts, New Hampshire, Vermont, Connecticut, New York, Pennsylvania, Virginia, and Ohio,—Samuel Lawrence, Esq., of Massachusetts, was called to the Chair, and G. Dana, of Ohio, appointed Secretary. After opening the meeting, an important and very interesting discussion took place, on the relative properties of the Saxon and Merino sheep, and more especially of their fleeces, in which Mr. Brown, (of the firm of Perkins & Brown, of Akron, Ohio,) as advocate for the excellence of the Saxon breed, and Mr. Joseph N. Blakeslee, of Connecticut, advocate for the excellence of the Merino breed, largely and most interestingly participated.—Those gentlemen, after various propositions, with the aid and approbation of the meeting, came to, and agreed upon the following manner of testing, and, as far as could be done, settling the question of the relative value of these two important breeds of sheep.

Perkins & Brown, in the presence of Guy Walcott, of Summit county, Ohio, are to select forty lambs, which said Walcott is to see shorn, and is to certify that they were of the flock and bred by said Perkins & Brown, and that they were shorn at or about one year of age, and at the clip of 1847. The said Blakeslee is to select a like num-

ber from his flock, which are to be shorn at the same age, in presence of N. B. Smith, of Connecticut, at the clip of 1847, who is to make a like certificate as the one above described—which are to accompany the wool of the said lambs to the Middlesex Company, and to be placed in the hands of Samuel Lawrence, Esq., who is to be the umpire to decide upon the merits of the two lots—and it is understood that the wool is to be stapled and scoured, and the value of each fleece placed against it—and to give the gentlemen competitors and the world, his decisions and his views at large on the comparative excellency of the two kinds of sheep and their fleeces; and the wool-growers throughout the United States are respectfully and earnestly invited to participate in this competition, the results of which are deemed important to the wool interest, and to shear at the clip of 1847, a like number of lambs, (and if there be any variation from one year in the age, have the certificate state that variation particularly,) and to obtain a well-authenticated certificate, and send them with the clip to the above-named umpire, who will report upon the whole, and award the meed of honor to whom it may be due, and make the report public. The reader will understand that Perkins & Brown have a choice flock of Saxons, and Mr. Blakeslee a very choice flock of Merinoes.

It was unanimously voted that this report be signed by the Chairman and Secretary, and published in the Lowell Courier, and that the papers friendly to the wool interest throughout the country, be requested to copy.

SAMUEL LAWRENCE, Chairman.

GEO. DANA, Secretary.

From the N. Y. Farmer and Mechanic.

Worn-out Lands--Average Products.

There is no department of Agriculture more important than that of preserving the fertility of the land. Worn-out lands should never exist where sun and rain are sufficient to prevent deserts. It ought to be a maxim, that correct farming never wears out land. That management which leads to different results is just as inconsistent and unbusiness like as it would be for a merchant so to trade, that his profit would be so small and his expenses so large as to require part of his capital to be expended year after year, until it was all exhausted. Yet what is more common than old worn out lands? Even the fine wheat lands of the Genesee country will now, in many instances, not bear rye. The average products of wheat in this State was, in 1845, only 14 bushels. In Monroe county the average was 19½; in Genesee 16½; in Cayuga and Ontario, 16. Compare this with old Kings, which averaged 19, and two of the outer wards of Brooklyn, which averaged 24 bushels. The average of rye in the whole State was 9½ bushels per acre. In Kings county it was 20 bushels, in Richmond 14½, and in Genesee only 10 bushels.

The average of corn in the State was 25 bushels per acre—in New York county, 40; Kings 38½; Richmond 35; Suffolk 34. In Monroe and Orleans 30; in Niagara, Ontario and Seneca, 29; and in most of the other Western counties still less. Potatoes averaged 90 bushels. In

Genesee 125; in Suffolk 120; in Kings and Monroe 110; in Seneca 97; in Queens 95.

The average of Peas was 15 bushels. In Kings, 35 bushels; in Richmond 24; in Putnam and Queens, 20—in Genesee and Madison 17; in Monroe, Livingston, Oneida, Ontario and Seneca, 16.

From the above it will be perceived that the old counties in the Southern part of the State do not compare unfavorably with the newer and much celebrated counties West and North. Fertility should be progressive, but Western New York has deteriorated. This could and should have been prevented. Simply returning all the straw to the wheat lands, with the aid of clover would have preserved the productiveness of the once rich West. How much greater would have been the wealth of Western New York, if the average of wheat could have been 20 bushels, with a steady increasing home market! This then should be the rule—imitate the forest. Its leaves and refuse yearly decomposed, not only provide for the growth of the trees, but actually adds to the richness of the soil, so as to be continually accumulating the powers of vegetation.

Our Creator has not commanded us to subdue and then exhaust the land, but to till, to improve it. For this purpose, abundant provision is made. Man is for progress, and so are also all the arts. Is he not a robber who exhausts the land of its fertility? Is he not worse than a "land monopolizer?" Can we not hitch the anti-exhausting principle on to the "landite" doctrine, and thus add strength to our friends who are striving to "vote themselves a farm?"

Preservation of Apples.

A correspondent of the Maine Cultivator, gives the following account of the most extraordinary preservation of apples we recollect to have seen. He says:—

"I send you an apple which I bought in the fall of 1843, of my neighbor, Thomas Meirs. Among others, it was put into my cellar, in open casks; and about the first of January, 1844, I overhauled them, and put three barrels away, packed in plaster of Paris—first a layer of plaster, then a layer of apples—and so alternately, till the barrels were filled. They were then headed up, and stood till the early part of last summer, when I overhauled and assorted them, and put them in a box in layers of dry oak saw-dust. The box had a lock and key, and has been kept locked up, only when we got apples out to use. We continued using out of the box, till some time after early apples were ripe, and I supposed they were all used out, but on town-meeting day, the 11th of March, 1845, (it being stormy) I told my man to assort my apples, and fill that box again with sawdust and apples. Upon unlocking the box and taking the saw-dust out, to our surprise there were three apples in the box, and all of them perfectly sound. The apple I send you having been kept in a warm room, has commenced, as you perceive, to rot. The above is submitted respectfully, for the benefit of all lovers of good apples."

SOAP AS MANURE.—T. Dalton, a silk dyer, says, in the London Agricultural Gazette, that

he uses 15 cwt. of soap weekly, to discharge the oily matter from the silk, and forming of itself a kind of soap,—the whole of which yields from 4000 to 6000 gallons of strong soap-suds per week. This he has lately applied to his farm, and "its effect is most extraordinary." It has been used only one season, and its results cannot be accurately given, but he considers it more powerful than any other manure; and he thinks if farmers were allowed the drawback of the duty on soap used as manure, as manufacturers are, it would soon supercede guano.—*Cultivator.*

Fattening Turkeys.

In fattening turkeys for the table, various methods are resorted to. Some feed them on barley meal mixed with skim milk, and confine them in a hen-coop during this time; others merely confine them in a house; while a third class allow them to run quite at liberty; which latter practice, from the experience of those on whose judgment we can most rely, is by far the best method. Care should, however be taken to feed them abundantly before they are allowed to range about in the morning, and a meal should also be prepared for them at mid-day; to which they will generally repair homewards of their own accord. They should be fed at night, before roosting, with oat meal and skim-milk; and a day or two previous to their being killed, they should eat oats exclusively. We have found from experience, that when turkeys are purchased for the table, and cooped up, they will never increase in bulk, however plentifully they may be supplied with food and fresh water, but, on the contrary, are very liable to lose flesh. When feeding them for use, a change of food will also be found beneficial. Boiled carrots and Swedish turnips or potatoes mixed with a little barley or oat-meal, will be greedily taken by them.—*Farmers Library.*

From the Boston Cultivator.

Swamp Tufts for Sandy and Gravelly Soils.

MESSRS. EDITORS:—

I have found the tufts taken from swamp land, by making drains, after having been well rotted, and mixed with a dry, coarse, sandy or gravelly soil, far superior to the best manure from horses, cattle, or sheep. I have even tried it on very gravelly land, and I might say on land composed almost entirely of stones from the size of shot to that of cannon balls or small pumpkins, and found it greatly to increase the produce when tilled or sown to grass where your barn-yard manure seemed to vanish like ether, without any or but little beneficial effect. I have tried them in several instances on such soils as above named, and in every instance found them to answer an immediate and valuable purpose, and to be as desirable as the best of manure on other lands. The manner I have applied these tufts has been by scattering them on the land after it had become mellow by ploughing or tillage, and then by ploughing, mix them with it. The whole land after this would form a productive soil, whereas before it was hardly more adhesive than the same mass of peach stones would be.

D. W.

Wendell, Mass.

Domestic Economy.

HOOSIER BISCUIT.—Add a tea-spoonful of salt to a pint of new milk, warm from the cow. Stir in flour till it becomes a stiff batter; add two great spoonfuls of lively brewers' yeast; put it in a warm place and let it rise just as much as it will. When well raised, stir in a tea-spoonful of saleratus dissolved in hot water. Beat up three eggs, (two will answer,) stir with the batter, and add flour until it becomes tolerably stiff dough; knead it thoroughly, set it by the fire until it begins to rise, then roll out, cut to biscuit form, put in pans, cover it over with a thick cloth, set by the fire until it rises again, then bake it in a quick oven. If well made, no directions will be needed for eating.

TO AVOID THE MINGLING OF COLORS IN CALICOES OR COLORED STOCKINGS.—To a pailful of water add $1\frac{1}{2}$ table spoonfuls of salt, in which rinse the articles thoroughly, and there will be no danger of discolored streaks.

Tomato for a cough.—The tomato has been used for a cough, with decided success, says a writer in the Farmer's Register. In one case the cough was from a diseased state of the liver, in another from the lungs. It was used after having been dried as above named, with a little sugar added to make it palatable. In a green state, they may be made into a syrup for this purpose.

From Miss Beecher's Domestic Receipt Book.

Pickle for Beef, Pork, Tongues, or Hung Beef.—Mix, in four gallons of water, a pound and a half of sugar or molasses, and of saltpetre two ounces. If it is to last a month or two, put in six pounds of salt; if you wish to keep it over the summer, use nine pounds of salt. Boil all together gently, and skim, and then let it cool.

Put the meat in the vessel in which it is to stand, pour the pickle on the meat till it is covered, and keep it for family use.

Once in two months boil and skim the pickle, and throw in two ounces of sugar and half a pound of salt.

When tongues and hung beef are taken out, wash and dry the pieces, put them in paper bags and hang them in a dry, warm place. In very hot weather, rub the meat well with salt before it is put in the pickle, and let it lie three hours for the bloody portion to run out. Too much saltpetre is injurious.

In very hot weather fresh meat will often spoil if it is put in cold pickle. At such

times put the meat into hot pickle and boil for twenty minutes, and the meat will keep a month or more. If you save the pickle, add a little more salt to it.

Soups.—The delicate and proper *blending of savors* is the chief art of good soup-making.

Be sure and skim the grease off the soup when it *first* boils, or it will not become clear. Throw in a little salt to bring up the scum. Remove *all* the grease.

Be sure and *simmer softly*, and never let the soup boil hard.

Put the meat into cold water, and let it grow warm slowly. This dissolves the gelatine, and allows the albumen to disengage, and the scum to rise, and diffuses the savory part of the meat. But if the soup is over a hot fire the albumen coagulates and hardens the meat, prevents the water from penetrating, and the savory part from disengaging itself. Thus the broth will be without flavor, and the meat tough. Allow about two table spoonfuls of salt to four quarts of soup, where there are many vegetables, and one and a half where there few.

Be sure not to leave any fat floating on the surface.

A quart of water, or a little less, to a pound of meat is a good rule.

Soup made of uncooked meat is as good the second day, if heated to the boiling point.

If more water is needed, use *boiling* hot water, as cold or lukewarm spoils the soup.

It is thought that potatoe water is unhealthy; and therefore do not boil potatoes in soup, but boil elsewhere, and add when nearly cooked.

The water in which poultry, or fresh meat is boiled should be saved for gravies, or soup, the next day. If you do not need it, give it to the poor.

Keep the vessel covered tight in which you boil soup, that the flavor be not lost.

Pea Soup.—Soak dry peas over night, putting a quart of water to each quart of peas. Next morning boil them an hour in this water, and ten minutes before the hour expires put in a teaspoonful of saleratus. Change them to fresh water, put in a pound of salt pork, and boil three or four hours, till the peas are soft. Green peas need no soaking, and must boil not more than an hour. When taken up, add butter.

Codfish Relish.—Take thin slivers of codfish, lay them on hot coals, and when a yellowish brown, set them on the table.

Deep Plowing.

A subscriber at New Brunswick, N. J., relates several instances in which deep plowing did not prove beneficial. In the case first related, he undertook to raise a large crop of turneps on a small piece of ground. The soil, which was a sandy loam, very friable and clear of stones, he dug with a spade, twelve inches deep, mixing well with the soil a very large quantity of well-rotted manure from the horse and cow stable. The crop was well taken care of, but the produce was small compared with other crops of the same kind in the neighborhood. There was, however, an extraordinary growth of tops, they having reached the height of two feet.

He next tried a similar experiment with potatoes—plowed deep, put in plenty of rotten manure, and mixed it well with the soil. The same result followed as with the turneps, very large tops and small potatoes, and of a poorer quality than the seed planted.

These results are by no means singular—we have often known such, especially with the kind of soil he mentions. A large quantity of animal manure deposited in a raw soil, nearly destitute of organic matter, usually tends, so far as our own observation goes, to produce straw or haulm in a greater proportion than grain or tubers. But after a year or two, when the manure has become thoroughly decomposed and incorporated with the soil,—when the soil itself has really become rich to the depth it has been worked—this deficiency of grain and tubers and excess of straw and tops will not follow.

The same writer mentions some trials he had made with urine, which resulted unfavorably.—He says it “scorched up” every thing to which it was applied, and that he finds it “acts so in pastures where horses run and have voided their urine.” We presume that the cause of the “scorching” is the same in both cases, that is, too much is applied in a place—bringing in contact with the plants a greater quantity of ammoniacal salts than they can digest. If he will first apply the urine to peat, charcoal dust, saw-dust, or any other absorbing substance, and then mix it with the soil, or use it as a thin top-dressing, he will find no cause of complaint.—*Cultivator*,

TO IMPROVE PEAR TREES.—At a meeting of the Philadelphia Society for Promoting Agriculture, held in February, Samuel C. Ford made the following statement as to his method of improving the fruit of the pear tree. He said:—“From experience, I can state the advantage to be derived from the application of iron to the roots of pear trees. It is known to all naturalists that iron enters largely as a component part into the fruit of the pear tree; and as many of our choicest varieties have very much deteriorated, I feel it a duty to state that my fruit has been much improved, and some that were almost worthless, restored by the following application:—During the winter, when the frost will admit, I have my trees dug around to the distance of three feet, baring the upper roots, and then have applied a bushel or more of cinders from a blacksmith's shop—old iron would be better. This oxydizes by the rains of the season, and is taken up in the sap as it ascends in the spring. This is a simple

experiment, and one that will be highly prized by all the lovers of fine fruits.”—*Phil. Sat. Courier*.

RIPENING PEARS IN THE HOUSE.—A correspondent of the Horticulturist complains to the Editor, Mr. Downing, that his Madeleine pears do not ripen well—that they rot at the core, &c., and asks if it is a defect common to the variety? Mr. D. answers that the Madeleine, and indeed almost all pears, must be ripened in the house. If left to ripen on the tree they have little or no flavor, and soon decay.

If picked as soon as they are fully grown and begin to color well and part readily from the tree, they are melting, juicy, high flavored and delicious. We cannot too often urge this upon the attention of all novices in the pear culture.—When once they have made this trial they will never again think of allowing pears to ripen on the tree.—*Maine Farmer*.

Old Seed.

Old grain (if well kept) is believed to produce better than new; not growing so rank in straw, as new seed. The writer of this, some years since, sowed a field with rye, the seed being a year old; and although much of it did not come up, it turned out more grain, and heavier, than any he has raised before or since, producing upwards of 40 bushels, weighing 60 lbs. per bushel, to the acre! Now there may have been other causes operating to produce so large a crop; yet I am inclined to give a large share of credit to the old seed. It was formerly the custom of some old farmers, when flax was raised as a regular crop for domestic use, to keep the seed seven years before sowing. I myself knew a person who kept his seven heaps of seed in the garret, and regularly sowed one every year, and replaced a heap of new seed to keep up the number. Any old woman will tell you that the seed of vines, such as melons, cucumbers, squashes, &c., by being kept from six to ten years, will produce more fruit and less vines! So it is very probable that age may have the same effect upon grain. The why and the wherefore I will not attempt to explain—it is sufficient for farmers to know the fact.—*Lancaster Co. Farmer*.

EFFECT OF SULPHATE OF IRON ON VEGETATION.—The Journal d'Horticulture Pratique asserts that a tree, of which the wood is tender, poor and sickly, to which a strong solution of sulphate of iron (copperas) should be applied, revives and puts forth an extraordinary vegetation. This dissolution of sulphate, of which M. Paquet has made many successful applications this summer, should be given in and with the water, when the plants or trees are watered, so that the roots may more readily absorb the chemical agencies which reanimate the vital forces of the tree.

MAKING VINEGAR.—To eight gallons of clear rain water, add three quarts of molasses; put them into a good cask, shake well a few times, then add two or three spoonfuls of good yeast cakes. If in summer, place the cask in the sun; if in winter, near the chimney, where it may be warm. In ten or fifteen days, add to the liquor a sheet of brown paper, torn in strips, dipped in

molasses, and good vinegar will be produced. The paper will, in this way, form what is called the "mother," or "life of vinegar."—*Gen. Far.*

HESSIAN FLY.—The Genesee Farmer says, "Taking Western New York together, the loss from the fly alone will doubtless be at least 500,000 bushels. Late sowed wheat has escaped the best. William Garbutt, who plowed up 14 acres of wheat destroyed by the fly, to sow with oats, ascribes his loss mainly to early sowing, at or near the first of September."

WHEN cranberries are first picked, put them in barrels and pour cold water upon them, and they will keep fresh a long time. If the barrels are placed where the cranberries will freeze and thaw with the changes of weather, they will keep better than in a warmer place.

TAKING THE HONEY WITHOUT DESTROYING THE BEES.—A farmer who tried the method which we published last summer, and which proved unsuccessful with one of our correspondents, called at our office to say that he had pursued the directions given, and the result was entirely to his satisfaction. He likes the plan better than any other he ever practiced. The mistake of Mr. Dimond, we apprehend, consisted in driving a new swarm instead of an old one.

A BRILLIANT WHITEWASH.—"Take half a bushel of nice, unslaked lime, slake it with boiling water, covering it during the process to keep in the steam. Strain the liquor through a fine sieve or strainer, and add to it a peck of clean salt, previously dissolved in warm water; three pounds of ground rice, ground to a thin paste and stirred and boiled hot; half a pound of powdered Spanish whiting, and a pound of clean glue, which has been previously dissolved by first soaking it well, and then hanging it over a slow fire, in a small kettle, within a large one filled with water. Add five gallons of hot water to the whole mixture; stir it well and let it stand a few days covered from the dirt. It should be put on quite hot; for this purpose it can be kept in a kettle on a portable furnace. It is said that about one pint of this mixture will cover a square yard upon the outside of a house, if properly applied. Brushes more or less small, may be used according to the neatness of the job required. It retains its brilliancy for many years. There is nothing of the kind that will compare with it either for inside or outside walls."

RICHNESS OF MILK.—The Boston Cultivator says that Alderney cows usually give milk so rich, that 7 quarts will often yield a pound of butter; and that of other cows it requires nineteen or twenty quarts. The milk from the famous cow, Blossom, required 19 quarts for a pound of butter.—*Cultivator.*

VALUABLE TO FARMERS.

THE subscriber would hereby say to the good people of Michigan, that he is prepared to furnish (on short notice,) those who wish, with a patent machine for the purpose of smoothing, cutting and leveling, or turning entirely, swamps and marshes.

The subscriber is also prepared to sell town and county rights

on liberal terms. This machine works to the entire satisfaction of all who have seen its operation. Two yoke of oxen are sufficient to prepare as many acres of marsh for the cultivated grasses, as they will harrow once over in the same time.

Farmers owning marshes are requested to call at the residence of the subscriber in the rear of the Baptist Meeting house and examine the machine for themselves. B. L. FREEMAN.
Jackson, Michigan, August 28, 1846.

LAND AGENCY,

JACKSON, MICH.

Office in the 2nd story, Brick block, adjoining the American Hotel.

THE subscribers, under the name of Hurlbut & Treadwell, have established an Agency at Jackson, Michigan, for the purpose of transacting business as General Land Agents, and will personally attend

To the purchase and sale of Real Estate of all descriptions, to the payment of Taxes, redemption of lands sold for Taxes, Examination of titles, Conveyancing,

and such other business as pertains to a general real estate Agency.

Persons having farms, or lands to dispose of in any part of the State, especially in Jackson or adjoining counties, will find it for their interest to furnish us with a particular description of the same, and the terms of purchase, as arrangements have been made with Eastern Agencies, through which owners desirous of disposing of such property, may be materially benefitted.

Purchasers also are invited to favor our agency. No charge will in such cases be made, except where a sale is effected, when a commission of 2 per cent. is expected; and our charges shall in all instances be satisfactory.

A Catalogue of lands for sale, will be published and extensively circulated by our office, and owners of Farms and other real property desiring to find purchasers, can for a reasonable consideration, avail themselves of this medium, by forwarding to us an accurate description of the property, its value, location, soil, improvements, &c., with the price and terms on which a purchase may be made, and the sum of one dollar for advertising each description. All letters must be post paid.

H. HURLBUT,
J. M. TREADWELL.

Jackson, September 1st, 1846.

Two or three improved farms are now wanted in the vicinity of Jackson.

CONTENTS OF THIS NUMBER.

Fall Plowing; Time of Planting; Large Apple Story; Diseased Apple Trees; Large Quince; English measures, 105	
Clover on Marshes; Salt to aid Decomposition; The Air Plant;	106
Planting Chesnuts; Cement for Floors; Covering to the ground useful; Alpacas; Cut Fodder; Wheat in the United States	107
Frost in August; Beeswax: The best five winter pears;	108
Information desired; Lime,	109
Compost Manures; Laying down to grass—Clover among Corn; Cheese Making,	110
To destroy Ants,	111
Our Land Agency; The Hessian Fly,	112
Planting Orchards; Preservation of Apples; Bee moth,	113
The Farmer's Garden,	114
Charcoal & barn yard manures compared; Raising Cranberries,	115
Woolen Match; Worn out lands; Average product,	116
Apples; Soap as manure; Fattening Turkeys; Swamp tufts for sandy soils,	117
Hossier Biscuit; To avoid the mingling of colors in calicoes; Tomato for a cough; Pickle for beef, pork, &c., Soups,	118
Deep ploughing; To improve pear trees; Ripening pears in the house; Old Seed; Copperas as a manure; Making Vinegar,	119
Hessian Fly; Preserving Cranberries; Taking honey; A Brilliant Whitewash; Richness of Milk,	120

MICHIGAN FARMER.

TERMS FOR VOL. IV.

During the ensuing year, all subscriptions will commence with the volume. The price of a single copy is fifty cents. To clubs, a reduction is made, namely, five copies for \$3, eight copies for \$3; and in this proportion for any larger number. No reduction allowed unless payment be made in advance.

To former subscribers, and to all others who may be vouched for by any resident agent, the paper will be sent on a credit till October next. To all demands remaining unpaid on the 1st of January next, an addition of 25 per cent. will be made.

STOREY & CHENEY, Book & Job Printers, Jackson, Mich.